

### **REMARKS**

Applicants previously presented claims 1-32 and 34-35 for examination. In the above-identified Office Action, all of the claims were rejected.

Applicants appreciate the Examiner's detailed comments in her Office Action for the above-identified application. For the reasons to be stated below, however, Applicants respectfully traverse the Examiner's rejections.

By this Amendment, Applicants have amended claims 1, 15, 23, 29 and 34. Accordingly, claims 1-32, 34 and 35 are pending. Reconsideration is respectfully requested based on the following remarks.

#### **103 Rejection over Cameron and Smith**

Claims 1-13, 15-32, and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,839,117 to Cameron et al. (hereinafter referred to as "Cameron"), in view of the Article "Management of Multi-Item Retail Inventory Systems With Demand Substitution" by Smith et al. (hereinafter referred to as "Smith").

Cameron pertains to an order entry system particularly for the telemarketing industry, to assist a user to enter a customer order.<sup>1</sup> The system includes "a summary module 30, a name capture module 32, an order capture module 34, a billing module 36, and a shipping module 38."<sup>2</sup> The summary module 30 captures order information and displays order information as it is completed.<sup>3</sup> The name capture module 32 identifies the billing customer.<sup>4</sup> The billing module 36 identifies the payment method for the offer being ordered by the customer.<sup>5</sup> The order capture module 34 identifies the way in which a user may capture an order for an offer from a customer.<sup>6</sup> Lastly the shipping module 38 identifies the way in which offers ordered by a customer may be shipped.<sup>7</sup>

<sup>1</sup> Col. 1, lines 17-20 of Cameron.

<sup>2</sup> Col. 7, lines 26-28 of Cameron.

<sup>3</sup> Col. 8, lines 11-13 of Cameron.

<sup>4</sup> Col. 9, lines 41-42 of Cameron.

<sup>5</sup> Col. 10, lines 40-41 of Cameron.

<sup>6</sup> Col. 13, lines 19-21 of Cameron.

<sup>7</sup> Col. 17, lines 51-52 of Cameron.

The backorder window 402 provides additional features for an ordered product that is not available. The backorder window 402 "provides the customer with four choices", where the customer may:

- (a) Order the quantity that is available and accept the backorder quantity to be shipped at a later time,
- (b) Order only the available quantity,
- (c) Choose to order an alternate or substitution offer (if one exists), or
- (d) Cancel the whole quantity of the original product.

"If the customer chooses to order a substitute, substitution window opens and displays a list of available substitutes. When an item is out of stock, either the item will automatically be substituted with the same item from a different vendor (for the same price), or a list of substitute items will be displayed. The customer may choose to substitute the original item with an item displayed in the list or choose from the list of alternate items."<sup>8</sup>

Cameron focuses on assisting a user in entering a customer order. Applicants agree with the acknowledgement in the Office Action that Cameron "does not disclose analyzing a selected portion of the received customer order taking into consideration at least another customer order, said analyzing being performed prior to the delivery of at least one ordered item of the received customer order and at least one ordered item of the at least another customer order."<sup>9</sup> Note that in Applicants' claimed invention, the analysis is not only influenced by another customer order, but the analysis is also performed after receiving the order but prior to the delivery of at least one ordered item of the received customer order. Cameron does not teach or suggest such details at all.

The Office asserted that Cameron teaches or suggests the substitution method in Applicants' claimed invention. Applicants respectfully disagree.

In Cameron, if a product is not available, a customer will be provided with four choices. Only if the customer selects substitution out of four different choices, there will be an opportunity for substitution. If the customer selects any of the other three choices, there will be no substitution.

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<sup>8</sup> Col. 17, lines 35-48 of Cameron.

<sup>9</sup> The last paragraph on p. 3 of the Office Action.

On the other hand, in Applicants' claimed invention, after a customer has placed an order, substitution automatically occurs upon the identification of the oversold item. No additional customer input is required between placing the order and substituting an item.

In an attempt to remedy the numerous deficiencies in Cameron, the Office Action introduced Smith to form the 103 rejection.

Smith pertains to determining optimal inventory to maximize profit assuming that customers can substitute a product that is not available.<sup>10</sup> Inventory optimization includes both the selection of which items to stock and the stock levels for each item in the assortment.<sup>11</sup> Smith uses mathematics to model individual item demands with substitution.<sup>12</sup> Smith finds that the negative binomial demand distribution has performed well in fitting retail sales data.<sup>13</sup>

After generating the mathematical models, Smith assumes that a customer substitutes products using three substitution matrices. The first matrix assumes that "the rate of substitution into each item is proportional to its original share of the market." The second one assumes that customers pick a substitute based on some criterion such as price or quality. "When an item is unavailable, customers choose an item that is adjacent in rank to their original preference." The third one assumes that all unmet demand is substituted to one item.<sup>14</sup> As explained, Smith teaches customers choosing a substitute, not a computing device automatically performing a substitute.

Smith is on creating models of customer behavior to fit retail data where customers can substitute products. Then based on the mathematical models and different assumptions, Smith determines what to stock in the inventory and predicts profits accordingly.

When Smith analyzes retail data, the analysis is after the fact, not prior to fulfilling any orders. Smith does not teach or suggest analyzing a customer order to determine if an item has been oversold after receiving the order but prior to the delivery

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<sup>10</sup> Abstract in Smith.

<sup>11</sup> The first full paragraph on the right-hand column of p. 55 in Smith.

<sup>12</sup> The first paragraph on the left-hand column of p. 52 in Smith.

<sup>13</sup> The second full paragraph on the left-hand column of p. 53 and Note 1 (p. 61) in Smith.

<sup>14</sup> The third full paragraph on the left-hand column of p. 57 in Smith.

of at least one item in the order, let alone the analysis includes another customer order, again prior to the delivery of at least one item of the other customer order.

In addition, Smith does not teach or suggest a computer-implemented method to identify an ordered item in the order that is related to an oversold item. Again, Smith's analysis is after the fact, not before the complete delivery of the customer order.

Finally, as to how substitution is made, Smith teaches customers picking different items. However, in Applicants' claimed invention, items are automatically substituted by a computing device, based on certain criterion.

Thus, it is submitted that Cameron and Smith, singly or in combination, do not teach or suggest independent claims 1, 15, 23, and 29, and their dependent claims 2-13, 16-22, 24-28, and 30-32 for at least the same reasons.

As to claim 35, since Cameron and Smith do not teach or suggest claim 34, with claim 35 depending on claim 34, Cameron and Smith could not possibly teach or suggest claim 35.

#### 103 Rejection over Cameron, Smith and Brinkley

Claims 14 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cameron and Smith in view of U.S. Patent No. 5,963,919 to Brinkley et al. (hereinafter referred to as "Brinkley"). Applicants respectfully disagree.

As explained, Cameron pertains to assisting a user to enter a customer order, and Smith pertains to determining what to stock and predicting profits based on analyzing existing retail data. Both of them fail to teach or suggest different features in claim 34, for example, receiving a number of customer orders, aggregating a selected portion of them that include many ordered items, and analyzing the many ordered items to determine an oversold item; then upon determining that at least one item has been oversold, automatically modifying at least a portion of the received customer orders by substituting alternate merchandise.

Applicants agree with the acknowledgement in the Office Action that Cameron and Smith do not "disclose the aggregating a selected portion of the received customer

orders or the plurality of customer orders.”<sup>15</sup> To remedy the deficiency, the Office Action introduced Brinkley to form the 103 rejection.

Brinkley pertains to an inventory management strategy that combines multiple management strategies. Based on the invented strategy, just enough inventory is maintained to satisfactorily fulfill customer orders without over-stocking. Brinkley does not teach or suggest substituting one product with another. Instead, Brinkley assumes products in an order to be fixed, and devises appropriately inventory management techniques based on the order. In other words, Brinkley teaches away from Applicants’ claimed invention.

In any event, Brinkley cannot overcome the deficiencies of Cameron and Smith noted above, either due to features in claim 34, or features in claim 1, which claim 14 depends on. Thus, it is submitted that neither Cameron, Smith nor Brinkley, individually or in any combination, teaches or suggests the invention in claims 14 and 34.

Regarding the remaining reference cited by the Examiner, since it has not been applied against any of the claims and do not appear properly applicable thereto, no further mention thereof will be made.

#### Summary

Accordingly, claims 1, 15, 23, 29 and 34 are patentably distinct from Cameron, Smith and/or Brinkley. Similarly, dependent claims 2-14, 16-22, 24-28, 30-32, and 35 which respectively depend from claims 1, 15, 23, 29 and 34, are therefore also not taught or suggested by Cameron, Smith and/or Brinkley for at least the reasons noted above.

Additional limitations recited in the independent claims or the dependent claims are not further discussed as the above-discussed limitations are clearly sufficient to distinguish the claimed invention from Cameron, Smith and Brinkley. Thus, it is respectfully requested that the Examiner withdraw the rejections of claims 1-32, 34 and 35 under 35 U.S.C. 103(a).

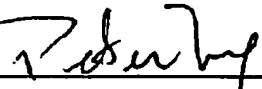
In the event that the Examiner, upon reconsideration, determines that an action other than an allowance is appropriate, the Examiner is requested and authorized to

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<sup>15</sup> The last paragraph on p. 9 of the Office Action.

contact the undersigned prior to taking such action, if the Examiner feels that such a telephone call will advance the prosecution of the present application.

Respectfully submitted,

By:   
Peter P. Tong  
Registration No.: 35,757

5051 El Camino Real  
Building A, Suite 22  
Los Altos, CA 94022  
Telephone: (650) 903-9200